

# EDINBURGH CHAMBERS' JOURNAL

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## BOOBY.

IN the most of well-conducted academies, there is no situation that comprehends at once so much of distinction and so much of comfort as that of Booby. At the top there is distinction, but no comfort. What with the questions put by the master to make a show before strangers, and what with those put by the inferior boys who want to displace him, Mr Dux is a most unenviable victim of ambition. Commend me to that equally conspicuous and much more agreeable situation, where one is surprised by a question or taken to task on an exercise perhaps once in the twelvemonth, but left during all the rest of the time to self-enjoying reflection or amusement; I mean the situation of Booby. There, far below the reach of those storms which agitate the surface, alike unobserving and unobserved, you spend that very life of perfect ease and content which the classic poets you are supposed to be studying so strenuously recommend. In fact, so far as practice shows, Booby may be said to study the classics to more advantage than any of his companions. No man so thoroughly obeys the Horatian maxim, "Equam mentis,"\* as he. No man shows more of the true spirit of the Stoic. The uneasy honours of Dux he regards with more cool contempt than ever Diogenes expressed for the lustrous fame of Alexander. Mr Booby, indeed, enjoys a philosophical tranquillity such as the ancients, with all their affectation of a love of lowly ease, never dreamt of. It is the tranquillity not only of situation, but of a mind at ease with itself and with all around it. There is no self-seeking in the heart of Booby. The fretful struggle and contention that goes on in the superior regions of the class, he looks upon as equally vain and improper: the famed joys of the strife are only, in his eyes, fit enjoyment for savages. His excellent friend, Second Booby, has sat by his side for years, and never yet has he formed the wish to degrade him from a place which he seems so well fitted to enjoy and to adorn. He would be a Brutus indeed, if he could entertain such an idea for a moment—nay, worse than Brutus, for his crime would entirely want the disinterestedness and elevation of motive which animated the Roman. It would be like killing one's bosom friend for the sake of his shirt-buttons. Only think of Booby beginning to look with a longing eye to the next place above him: think of him forming, in the recesses of his quiet mind, the murderous design of dispossessing Second Booby by a question as to be and bam. The notion is out of the question; it is not a thing in nature. No, no; far, far indeed, are such thoughts from the innocent and philosophical spirit of Booby. There may be treachery in a friendship between Fifth Dux and Sixth Dux; and I suspect, with the Edinburgh Review,† that Dux himself is in general more great than good. But in Booby there is a "faith that knows no guile," a steadfastness of honour, and a purity of intention, that place him far above such crimes. The ambitions that beset little minds affect not him. While the tencup souls of his so-called superiors are exemplifying the whole phenomena of their miniature tempests, he sits serene and unruffled, without a passion, without a sigh.

I am the better able to talk thus of Booby, seeing that I had the fortune to possess the situation during the whole five years of a regular classical course. I was placed, at the age of eight, in a private academy where my father had been Booby before me. He has

told me since, that, during all the time he spent there, he never had acquired a single idea, and hardly even a word; but the custom of the country was a stronger principle with him than his own experience. Perhaps, modestly ascribing his own want of success to incapacity, he hoped that I would make a better figure. Accordingly, to the academy I went, and, having been placed at the bottom of a class, there, by the inexpugnable laws of gravitation, did I remain ever after. What may be the state of feeling in schools of the present day, I do not know; but in my time, the march of intellect not having commenced, nine-tenths of the boys reasoned in this fashion:—Latin is a grievance; we don't see any sense or use in it; it is a torment that the younger part of the human race seem destined to suffer, and which there is no evading; let us, then, try to make this misery as endurable as we can; let us learn just as little as will suffice to please the master, and spend all the rest of our time in compensatory amusement. No attempt was ever made by the teachers of those days to engage the hearts of the boys in their tasks. The first difficulties remained all unexplained. Every thing was made as hard, dry, and unattractive as possible; and after floundering blindly through one thing which they could not understand, they were taken on to another, which, without a full acquaintance with the preceding, was still less intelligible. In schools where the masters were not indifferent to the progress of their scholars, the ferule was the only active principle. That dreaded object flew about in all directions, like a vengeful spirit, through a kind of limbo, punishing wretches for the non-performance of an endless series of impossibilities.

In the first school which I attended, it happened that the master was one of the better-natured sort. He did not employ the lash above twice or thrice a day, and that more frequently in cases of misconduct than of stupidity. He had one regular routine of instruction, which went on and on from year unto year, without the least specific regard to the understandings or acquisitions of the boys; and I believe he put forth his scholars at last with as good a show of learning as the most of his brethren. For my part, I have amazingly little reason to complain—for I was allowed to rest in the safe and easy station for which I have so much respect, for three years, without being ever bothered above once in a month about lessons, or receiving more than perhaps a pinch in the ear during a whole twelvemonth. Being looked upon as a well-behaved boy, my dullness elicited from him the less disapprobation: if he happened to ask me a question, and saw me only give a stare upon vacancy in answer, he would benevolently pat my head, and bid me sit down, which I generally did amidst the congratulatory smiles of my companions. Schooling was therefore to me by no means so great a trouble as it is to many. It was a confinement to be sure, and prevented those out-door amusements in which I, as well as my companions, would otherwise have indulged. Yet we all acknowledged it was not, even in this respect, without some relief. If we could not play at the shinty and the paips, we could tell stories under the hum of the school, dab for pictures in our Cæsars and Corneliiuses, or inveigle one another into the corby's nest, under the specious pretext that the corby was not at home.

Thus I went on for three years, contented with my companions and myself, and never once dreaming of an effort to rise. My father occasionally called to see how I was getting on, and though he found me exactly in the same profitless condition as that in which he had himself been some thirty years before, he never

once presumed to call in question the propriety of my going through the usual process of apparent instruction. The master always characterised me as "a steady boy;" which I certainly was—to my favourite place. Sometimes, in our own home, I would become the subject of conversation to ladies calling for my mother; and when the dreadful truth had to be told that I was a hopeless dunce, it was curious to observe how ingeniously they contrived to console her. All agreed that there was no judging from that as to my future career. Many of the most eminent men of the day had been boobies at school. Indeed, they never liked to see boys too clever at first: they were so apt to fall off afterwards. I would hear the same ladies at the house of my cousin James, who always stood dux of his class, congratulate his mother on the promise held out by her son of attaining to eminence; but that was no matter. The double-dealing of these complaisant gentlefolks never reached my mother's ears; and even if it had, there were fortunately a sufficient number of instances to justify both conclusions.

The two latter years of my course were spent at a country boarding-school, where the situation of Booby was a very different thing from what it had been in my former academy. The master was the smallest and the most active man I ever saw. His grand maxim was to keep the boys on the alert: nobody should be allowed to fall asleep in his school. To enforce this maxim, he carried a pair of short but impressive tawse, which rested constantly over his left arm, on the same principle as the waggoner carries his whip over his right shoulder—in order to be ready for action—and which were accordingly never idle for a minute at a time. Brisk, fiery, relentless, he strutted, and stormed, and whirled through the school, questioning here and questioning there, here a thump and there a thwack, here tossing a boy out of the place he had lost, and there tossing another into the place he had won, and ever and anon, when he saw two or three of us at the bottom of a class laying our heads together for a friendly chat, coming in upon us with a swash of the tawse, accompanied by his everlasting cry of "Come, boys—be active." It may be imagined how, after being accustomed for three years to a gentle and easy boobyhood under Mr J., I suffered from the vexing energy of Mr K. It was like subjecting a pampered palfrey, all of a sudden, to the sorrows of the sand-cart. To be of a humble mind as to places, was here, I found, no protection from the miseries incidental to school-life. Nay, I think Mr K. had a kind of pleasure in worrying the dunces. He was perpetually at us with questions, and for every failure to reply, there was a distributive sparge of the tawse over the whole corps. He evidently knew nothing of the amiable feelings which usually animate boobies; or if he knew, he was unappreciative of them. He would put the harshest constructions upon our deficiencies in construction, and attribute to stupidity what was neither more nor less than a retiring and graceful modesty. Shrink as we might from the higher and more responsible places in the class, he would cause translation to translate us, sometimes, in spite of our teeth. I remember being once obliged to change places with Dux, and never, though I should be made prime minister, will I suffer more of the pains of self-diffidence than I did on that occasion. The situation was one of startling, I may say awful, novelty. For several minutes I could not cast my eyes along the tittering line of my inferiors, or face the fallen angel of whose disgrace I had been the almost unconscious cause. A curious indefinable sensation of alarm stole over me, as I felt my arm touching Second Dux, whom I had been ac-

\* In arduous hours an equal mind maintain,  
Nor let your spirit rise too high.

Francis's Horace.

† See a rather unfriendly account of Mr Dux, at the 328th page of the 10th volume of this eminent periodical

customed to look upon as a fellow of tremendous acquirements and respectability: if I had been sitting cheek by jowl, indeed, with a man who was to murder me next minute, I could hardly have felt more strange. I was a kind of Massaniello, without the energy or the wish, far less the ability, to use my accidental supremacy. Accordingly, I had not been dux a minute when down I came. The youth whom I had displaced, crossed me about the middle of the class; and this useless piece of Jacobinism on the part of the master terminated, about ten minutes after my elevation, in my resuming my usual quarters. My old companion, Second Booby, as he took the last place I had to lose, congratulated me on my restoration; and from that time I knew that he was a real friend, as I am glad to say he has ever since continued.

Cuffs, exercises, lashings, pinches, questions, tossings, and tumblings, brought even these two years to an end. I ended where I had begun. Latin had been a mystery to me at the first, and a mystery it was at the last, though not so great a mystery as the anxiety of all the old people I knew that we youths should learn it. A few boys at the top had, I believe, a glimmering kind of notion of what it was all about; but below the seventh, all was Cimmerian darkness. My ignorance would have been nothing—and I know this sentiment was participated in by all my neighbours in the class—if the master would have only allowed us the peace we wanted. If all masters were humane and easy, we argued, it might be as well to amuse ourselves within doors at so much a quarter, as out of doors for nothing, seeing that papa, who would have it so, paid for all; but such conduct as that of Mr K. met with our decided disapprobation. His teaching came all to the same end, and we had unspeakable suffering in the course of it, while we might have as well spent the time in fun. Impressed, even in mature life, with the force of this reasoning, I have taken care to select for my two boys, George and William, who are now respectively eight and ten years of age, a master of Mr J.'s kidney, who will allow them to go through the unavoidable apparition of learning, with a whole skin. If the lads have a turn for classical literature, I know they will ascend in the class without the promotive influence of the ferula; and if, like their father and grandfather, they are destined to be Boobies, why, then, they will be so with that peace of mind and ease of body which I so anxiously desired for myself.

#### POPULAR INFORMATION ON SCIENCE.

##### PERIODICAL WINDS.

In concluding our observations on this interesting branch of meteorology, it remains for us to consider the nature of those winds which are comprehended under the two last classes into which they are divided, viz. periodical winds and hot winds. By periodical winds are meant those which invariably recur at certain definite and fixed periods; such as the Monsoon, the Harmattan, Sea and Land Breezes.

##### THE MONSOON.

In India, a very remarkable periodical or half-yearly wind prevails, which is called the Monsoon, from a Malay word *moussin*, which signifies season. It blows one-half the year from the south-west to the north-east, and the other half from north-east to south-west. The former is accompanied by rain and tempest, and constitutes in India the "rainy season;" the latter, although in this respect admitting of some modifications, constitutes the "dry season" of the year. The south-west monsoon, in the southern parts of India, commences about the beginning of June; but in proceeding northwards, it does not commence until later. It is ushered in by vast masses of clouds, which arise from the Indian Ocean; and as they advance towards the north-east, gather and thicken as they approach the land. In a few days afterwards, the sky assumes a more troubled aspect towards the evening, and it is in the night that the monsoon generally sets in. It begins with violent blasts of wind, which are succeeded by floods of rain, during which the lightning flashes without intermission; at first illuminating the sky, showing the clouds near the horizon; then discovering the distant hills, and leaving them again shrouded in darkness; then in an instant reappearing in vivid and successive flashes, which exhibit even the nearest objects in all the clearness and distinctness of noonday light. The thunder, in the meantime, never ceases to roll; and one peal is only silenced by another, which breaks with a more tremendous and prolonged crash on the ear, such as may strike with awe the most insensible heart. Then the thunder ceases, and nothing is heard but the continued pouring of rain and the rushing of rising streams. This lasts for several days; the sky then clears, the air becomes soft and pure, the rivers are full and tranquil, and the whole face of the earth, as if by enchantment, appears clothed with thick and luxuriant verdure. The rain, after this, falls at in-

tervals for about a month; then it increases in violence, and attains its height in the month of July, when it descends thickly and heavily *en masse* from the heavens. Then this monsoon, in August, somewhat diminishes; in September, it abates, or is entirely suspended, until the end of the month, when it again re-appears; and departs, as it came, amidst thunder and lightning, and all the turmoil of tempest.

Such is the south-west monsoon, as it appears in the greater part of India; but it is liable to considerable variations, caused by the influence of the sea, and the mountainous regions along which it may sweep. Near the sea, the rain falls more plentifully; because, from the more abundant evaporation, the air is there more charged with moisture. The mountains also affect its course, by interrupting and diverting the progress of the winds and the clouds they bear. Thus, the wind which brings the rain to the north-eastern part of the Indian continent, originally blows from the south-west over the Bay of Bengal, until it reaches the Himalaya mountains, and those which join them from the south; these check its current, and compel it to follow their range towards the north-west; but when it has continued so far towards the north-west as to meet that chain of mountains called the Hindoo Coosh, then it is by them turned off towards the west, and sweeps along until interrupted by the range of the Solimaun, which prevents its proceeding farther in that direction, or compels it to part with the clouds with which it was laden. If the reader will for a moment trace on the map the course here described, he will at once perceive the influence these mountains must have in modifying the direction and general character of the monsoon.

Hitherto we have principally noticed the south-west monsoon, which constitutes the "rainy season" in India; to this succeeds the north-east monsoon, which, with the exception of the eastern side of the Coromandel coast—to which it brings the periodical rains that begin about the middle of October, and end generally in the middle of December—is attended with dry weather throughout the peninsula. After setting in, during the month of September, with considerable variations in its commencement, the north-east monsoon establishes a milder though not less absolute dominion, which lasts until the end of February or the beginning of March. From that period to the month of June, the winds are irregular, and the heat very great all over the peninsula. In respect to the cause of the monsoons, they are, on the authority of the celebrated philosopher Halley, to be explained on the same principle as the trade-winds; the action of the sun's rays inducing a rarification of the air, and consequent rushing in of a colder current from the sea and land; and the physical aspect of the country, its elevations or plains, modifying the reflection and influence of the solar rays: which causes, taken conjointly, sufficiently account for the periodical recurrence and local peculiarities of the monsoons.

##### THE HARMATTAN.

The Harmattan is another periodical wind which blows from the interior parts of Africa towards the Atlantic Ocean during the months of December, January, and February. It is accompanied by a dense fog, and is characterised by its extreme dryness. "At this period," says Burchell, "it would be difficult for a person accustomed to the air of England to conceive a just idea of the excessive dryness of the atmosphere in the interior of the most arid continent of the globe. The dry grass crackled under our feet, and even my fingers and nails were rendered extremely brittle." Indeed, so long as it prevails, the vegetable creation seems to wither under its influence; and the human body is so much affected that the cuticle peels off.

##### SEA AND LAND BREEZES.

The Sea and Land Breezes may be truly classified under the head of periodical winds; they occur in the following manner:—During the day, the wind blows for a certain number of hours from the sea to the land; but when evening arrives, it changes its direction, and blows as many hours from the land to the sea. In this country the sea-breeze sets in about seven or eight in the morning, and is strongest at noon, but continues very sensible until three o'clock, when the surface of the sea will be observed to exhibit ripples of a deep blue colour. After this, at six in the evening, the land-breeze commences. The sea now assumes a greenish hue; and this breeze continues until eight the next morning. The cause of this alternation may be readily explained. During the day, the air over the surface of the earth is more heated by the rays of the sun than that over the surface of the sea; because the earth, from its greater density, comparative state of rest, and numerous elevations, reflects the sun's rays sooner, and with more power than they are reflected from the sea, which, from its state of constant motion and transparency, imbibes the warmth very intimately, though more slowly. Accordingly, when the sun, having arisen above the horizon, has, by the reflection of its rays, thus imparted a sufficient degree of warmth to rarify the body of air over the land, the air so rarified ascends into the higher regions of the atmosphere, while that over the surface of the sea, being scarcely at all rarified, rushes in to supply its place. Hence, a sea-breeze or current of air from the sea to the land at this time prevails; but when the sun again begins to sink below the horizon, the body of air over the surface of the land becomes

rapidly cold, and the earth itself, by radiation, parts very quickly with the warmth it had absorbed. Then the land air, being below the temperature of the sea air, rushes in to supply its place, and thus during the night, a land-breeze, or a current of air from the land to the sea, is produced. When the sea-breeze first sets in, it commences very near the shore, and gradually extends itself farther out at sea, and as the day advances, becomes more or less hot. Hence, the sails of ships have been observed quite becalmed six or eight miles out at sea, while at the same time a fresh sea-breeze has been blowing upon the shore. The cause of this is obvious: for it is natural to suppose that the mass of air nearest the land will be the first to rush in, for the purpose of supplying the place of the air which is rarified immediately above it. On this account the effect of the sea-breeze is said not to be perceptible at a distance of more than five or six leagues from the shore, and for the most part becomes fainter in proportion to its distance from land. The distance, on the other hand, to which the land-breeze extends in blowing across the sea, depends on the more or less exposed aspect of the coast from which it proceeds. In some places this breeze was found by Dampier brisk three or four leagues off shore; in other places not so many miles; in others, again, it scarcely extended without the rocks. The sea-breeze, from blowing over a more open tract, is always stronger than the land-breeze; but it is observed that the land-breeze is by far colder than the sea-breeze. Furthermore, it has been noticed that the tendency of the land-breeze at night has almost invariably a correspondence with the sea-breeze of the preceding or following day. "Should the land-wind from being east, draw, in the course of the night, towards the north, it would be looked upon," says Marsden, in his History of Sumatra, "as an infallible prognostic of a west and north-west wind the next day; and on this principle it is that the natives foretell the direction of the wind, by the noise of the surf at night, which, if heard from the northward, is esteemed the forerunner of a northerly wind, and *vice versa*. The quarter from which the noise is heard depends on the course of the land-wind, which brings the sound with it, and drowns it to leeward; the land-wind has a correspondence with the next day's sea-wind, and thus the divination is accounted for."

##### HOT WINDS.

The winds which are included under this class are the most desolating and appalling that can possibly be conceived. They are, it is universally allowed, the terror of every traveller who has the enterprise to journey through the regions in which they occur. Invariably they arise from desert continents, the air over which acquires a prodigious degree of heat and aridity. They occur in Arabia, in Egypt, in Syria, and also in Sicily, Spain, and Portugal.

##### THE KAMSIN, SIMOON, OR SAMIEL WIND OF THE DESERT.

The Hot Wind of the Desert has received these three appellations. By the Arabs it has been called Kamsin, from the Arabic word *Kamsin*, signifying fifty days—because they prevail more frequently during the fifty days preceding and following the equinox than at any other period; the Simoon, from the word *Semoun*, signifying poison; and Samiel, from the word *Shamiel*, signifying the wind of Syria. When these winds begin to blow, the atmosphere assumes an alarming aspect. The sky, at other times so clear, becomes dark and heavy; the sun loses his splendour, and appears of a violet colour. The air is not cloudy, but thick from the subtle dust with which it is loaded. Sometimes the sky appears yellow, from the refraction of light on the minute pieces of quartz which are floating in the air. Sometimes it has a peculiar and frightful blue colour; which variety of this wind comes from those districts where the soil is composed of a great deal of blue-coloured marl and limestone. At first, the wind is light and rapid, and not remarkably hot; its temperature, however, soon increases, until it ranges at upwards of 128° Fahrenheit. The danger, however, is most imminent when it blows in sudden squalls, as then the rapidity of the wind increases the heat to such a degree as to be altogether intolerable. "When this wind occurs," says Volney, "all animated bodies discover it by the change it produces in them. The lungs, which a too rarified air no longer expands, are contracted and become painful. Respiration is short and difficult, the skin parched and dry, and the body consumed by an internal heat. In vain is recourse had to large draughts of water; nothing can restore respiration; in vain is coolness sought for; all bodies in which it is usual to find it deceive the hand that touches them. Marble, iron, water—notwithstanding the sun no longer appears—are hot. The streets are deserted, and the dead silence of night reigns every where. The inhabitants of towns and villages shut themselves up in their houses, and those of the Desert in their tents, or in wells dug in the earth, where they wait the termination of this destructive heat." All travellers bear testimony to the destructive effects of this wind. Maillet observes, that, when it occurs, "the whole caravan (an eastern word signifying a company of travellers) becomes so sickly and exhausted, that three or four hundred persons are wont in common to lose their lives. Even greater numbers," he adds, "as many as fifteen hundred, have died under it, of whom the greatest part were stilled on the spot by the fire and dust of which this fatal



wind seems to be composed." To avert its deadly effects, persons who have the misfortune to encounter it are recommended to fall flat on their faces upon the ground, and cover with their handkerchiefs their nostrils and mouth. The camels, it is said, instinctively bury their nostrils in the sand, and keep them there until the squall is over. The method of self-preservation here adverted to appears to have been adopted by the celebrated traveller Bruce, who observes, that, while he with his fellow-travellers contemplated with pleasure a distant spot to which they were hastening, their guide cried with a loud voice, "Fall on your faces, for here is the simoon!" It was seen by Bruce coming from the south-east with a haze like the purple part of the rainbow, and scarcely had time to throw himself on the ground, when the heat of its current passed sensibly by him. He and his companions lay flat on the ground until their guide apprised them it was past; but even afterwards, the light air which still blew was of such a heat that it threatened suffocation, and the painful asthmatic sensation it produced so affected him, that he did not get rid of the unpleasant sensation until nearly two years afterwards. The simoon usually lasts for three days, but sometimes longer; in which case its fatal effects are still more aggravated. It frequently occupies only a small space, and moves with great rapidity. On the occasion just referred to by Bruce, we are informed that "it did not occupy more than twenty yards in breadth, and was about twelve feet high from the ground. It was a kind of bluish on the air, and moved very rapidly." Such is a brief account of the character and awful effects of the kamsin, or simoon of the Desert; nor can we conclude our notice of it more appropriately than by citing the following lines of Lord Byron, who, in alluding to the sudden departure of the Giasour, observes—

"He came, he went like the simoon,  
That harbinger of fate and gloom,  
Beneath whose widely wasting breath  
The very cypress droops to death;  
Dark tree, still sad when others' grief is fled,  
The only constant mourner o'er the dead."

#### THE SIROCCO—THE SOLANO

The Sirocco is the name given to the hot wind which is occasionally met with in Sicily, and which is supposed to derive its origin from the burning deserts of Africa. The Solano is a term applied to a modification of this wind, which is met with in Spain and Portugal. The heat of the sirocco wind is described to be excessive. Brydone observes, that, when he experienced its first blast, he felt as if his face had been exposed to the burning steam from the mouth of an oven. When this wind occurs, the inhabitants of every town close their doors and windows against the admission of the external air, and sprinkle their apartments with water. Not a person ventures into the open air. It lasts from six or seven to thirty-six or forty hours. During this period the air is thick and heavy, and the sun does not appear. The thermometer, from 70° or 72°, suddenly rises to 110° or 112°, or even higher. When this sirocco wind, which always blows from the south, shifts, the north wind, which is called the *tramontane*, succeeds, and the country is again relieved from this distressing visitation. The most remarkable effect of the sirocco is the extreme lassitude and depression of animal spirits which it produces. It gives a degree of lassitude both to the body and mind, which renders both alike unfit for performing their functions. "The natives themselves," says Brydone, "do not suffer less than strangers, and all nature seems to languish during this abominable wind. A Neapolitan lover avoids his mistress with the utmost care during the time of the sirocco, and the indolence it inspires is almost sufficient to extinguish every passion. All works of genius are laid aside during its continuance; and when any thing very flat or insipid is produced, the strongest phrase of disapprobation they can bestow is, '*Era scritto in tempo del sirocco*;' which means, it was written in the time of the sirocco." Here we may pause to ask, What is the cause of the sirocco producing so remarkable a depression in the animal economy? The explanation that has been given in reply is not less ingenious than plausible, nay, we will venture to affirm, is probably correct. The human body, it is well known, is pervaded—as we have repeatedly explained, every body in nature is—with that subtle fluid termed electricity. It operates in the animal economy as a direct stimulus, and by many eminent physiologists it is believed that the electric fluid is identical with the nervous energy—in other words, that the power of the nerves really consists in electricity, which, whether as a distinct fluid or not, pervades them. Accordingly, it is argued that the sirocco wind, sweeping over a dry and flat desert of sand from such a district, can receive no electrical impregnation; but the moisture which it acquires in its passage subsequently over the sea, gives it a strong absorbing or conducting power for electricity. The consequence is, that this moist wind coming in contact with bodies possessed of more electricity, will rob them of part of their electric fluid, until an equilibrium is effected between the earth and air. Now, as the human body readily parts with and receives electricity, it will follow that it must afford a ready point for the transmission of this fluid, and thus it becomes deprived of a portion of this stimulating fluid by the surrounding atmosphere, and the symptoms of depression already referred to natu-

rally ensue. This explanation applies not only to the effects of the sirocco, but will also explain the influence of every different kind of weather in exciting or depressing the nervous energy of the animal system in any season or climate.

We have now brought to a conclusion our observations on the principal winds which are included under the four classes into which they have been divided; it remains for us only to notice the velocity of the winds, their power, and extent. The velocity of the wind is from 0 to 100 miles in an hour:—When it moves at the rate of 1 mile per hour, it is said to be hardly perceptible; at 2 or 3 miles, just perceptible; at 10 to 15 miles, pleasant or brisk; at 20 miles, bracing; at 20 to 25 miles, very brisk; at 30 to 35 miles, high; at 35 to 45 miles, very high; at 50 miles, storm or tempest; at 60 miles, great storm; at 80 miles, hurricane; at 100 miles, hurricane, tearing up trees and throwing down houses, &c.

The instrument which is used for measuring the force of the wind is called the *Anemometer*, but it is to be regretted that on this subject meteorologists have only made very imperfect observations. Indeed, a satisfactory instrument for the purpose has not yet been devised; the best, however, is one invented by Lind. With this instrument, Mr Harris of Plymouth with great assiduity examined the force of the wind, and kept a register of the results. The mean force of the wind for the whole year appears, by his observations, to be greater at 3 o'clock p.m. than at 9 a.m. or 9 p.m.; and its mean force at 9 a.m. is somewhat but not considerably greater than at 9 p.m. The extent of the different currents of wind in breadth, is also by no means easily ascertained, though in respect to their height it is often obvious that a ground current of wind is proceeding in one direction, while an upper current at no great distance is proceeding in an opposite direction. Thus the clouds may often be observed to move in a direction contrary to the wind we experience, and we have generally noticed that the electricity of the atmosphere is consequently much disturbed. Often afterwards thunder and lightning follow, with a heavy fall of rain or hail.

#### THE WOOING OF MASTER FOX.

Or all people, the Germans are the most successful in inculcating moral instruction through the medium of allegory. It is a faculty peculiar to the genius of the nation; and they have employed, and continue to employ, agency which might seem inadmissible in the present age of enlightenment. The writings of La Motte Foulque, however, and many other native authors of celebrity, show with what success even the superstitions of a people may be made subservient for the purpose of practical morality when treated by the hand of genius. Nor do they even scruple to employ the agency of the brute creation, endowing them, like *Æsop* of old, with the faculties of speech and reason; and thus conveying advice, encouragement, satire, or reproof, to mankind, not the less pungent or effective from the somewhat abasing medium through which it is administered.

Of the few successful imitations of the latter primitive mode of instruction, by writers of our own country, we reckon the following not the least happy. It is abridged from a volume lately published by Mr Lytton Bulwer, called "*The Pilgrims of the Rhine*;" a work abounding with beautiful imagery, lofty and refined sentiment, acute remark, and splendid descriptive passages. We hesitate not to confess, indeed, that we would be inclined to augur more for the future literary career of Mr Bulwer, from this his last production, than from any of its predecessors, notwithstanding the high favour with which all of them have been received by the public.

It was in the (supposed) happy times, when all the brutes lived in peace and amity together, that a young and beautiful Cat was left an unprotected orphan. As, in addition to her personal charms, she had the additional attraction of great patrimonial wealth, she was naturally regarded as one of the best matches in the whole country; and was, therefore, besieged by all the bachelor-brutes or brute-bachelors of the district. Amongst her other suitors were the Dog and the Fox: the former, a blunt, honest, plain-spoken fellow; the latter, a sly, insidious, designing knave—both of them, in short, possessing much the same characteristics as are imputed to their respective descendants of the present day. One morning the Dog set out to pay his respects to Grimalkin, who lived a considerable distance off, when Reynard, who kept a watchful eye on all his motions, and well knew the purpose of his journey, slipped through the wood by a nearer cut, and lying down in the path beside a large hole, set up a most piteous howling. The Dog speedily came up, and inquired kindly into the nature of his disaster; when Reynard said that a little sister of his had got into the hole, and would certainly be smothered unless immediately extricated, for which exertion he himself was quite unfit, owing to an unfortunate sprain in the back. The compassionate Dog readily volunteered his services, but had no sooner entered the hole than Reynard blocked it up with a large stone, and with a taunting remark at his rival's simplicity, set off, and left him to his fate. The treacherous rogue forthwith made the best of his way to Grimalkin's mansion; but conceiving the propriety of understanding all his mistress's foibles—or, in other words, finding out her weak side—before commencing

his attack on her affections, he dropped in on her neighbour the Magpie, the scandal-monger-general of the bestial tribe from time immemorial.

Mrs Mag received the Fox with great cordiality, and inquired what brought him so great a distance from home.

"Upon my word," said the Fox, "nothing so much as the pleasure of seeing your ladyship, and hearing those agreeable anecdotes you tell with so charming a grace; but, to let you into a secret—be sure it don't go farther—"

"On the word of a Magpie," interrupted the bird.

"Pardon me for doubting you," continued the Fox; "I should have recollected that a Pie was a proverb for discretion; but, as I was saying, you know her majesty the Lioness."

"Surely," said the Magpie, bridling.

"Well; she was pleased to fall in—that is to say—to—take a caprice to your humble servant, and the Lion grew so jealous that I thought it prudent to decamp; a jealous Lion is no joke, let me assure your ladyship. But mum's the word."

So great a piece of news delighted the Magpie. She could not but repay it in kind, by all the news in her budget. She told the Fox all the scandal about Bruin and Gauntgrin, and she then fell to work on the poor young Cat. She did not spare her foibles, you may be quite sure. The Fox listened with great attention, and he learnt enough to convince him, that however the Magpie exaggerated, the Cat was very susceptible to flattery, and had a great deal of imagination.

When the Magpie had finished, she said, "But it must be very unfortunate for you to be banished from so magnificent a court as that of the Lion."

"As to that," answered the Fox, "I console myself for my exile, with a present his majesty made me on parting, as a reward for my anxiety for his honour and domestic tranquillity; namely, three hairs from the fifth leg of the Amoronthologosphorus. Only think of that, Ma'am."

"The what?" cried the Pie, cocking down her left ear.

"The Amoronthologosphorus."

"La!" said the Magpie, "and what is that very long word, my dear Reynard?"

"The Amoronthologosphorus is a beast that lives on the other side of the river Cylinx; it has five legs, and on the fifth leg there are three hairs, and whoever has those three hairs can be young and beautiful for ever."

"Bless me! I wish you would let me see them," said the Pie, holding out her claw.

"Would that I could oblige you, Ma'am, but it's as much as my life's worth to show them to any but the lady I marry. In fact, they only have an effect on the fair sex, as you may see by myself, whose poor person they utterly fail to improve; they are, therefore, intended for a marriage present, and his majesty, the Lion, thus generously atoned to me for relinquishing the tenderness of his queen. One must confess that there was a great deal of delicacy in the gift. But you'll be sure not to mention it."

"A Magpie gossip, indeed!" quoth the old blab.

The Fox then wished the Magpie good night, and retired to a hole to sleep off the fatigues of the day, before he presented himself to the beautiful young Cat.

The next morning, nobody knew how, it was all over the place, that Reynard the Fox had been banished from court for the favour shown him by her majesty, and that the Lion had bribed his departure with three hairs that would make any lady, whom the Fox married, young and beautiful for ever.

The Cat was the first to learn the news, and she became all curiosity to see so interesting a stranger, possessed of "qualifications" which, in the language of the day, "would render the animal happy!"

Meanwhile, let us see what became of the poor Dog. Finding it equally impossible to turn himself in the hole, or to force his way out backwards, he bethought of searching for some other mode of egress at the other end of the passage. He therefore squeezed his way inwards, until he came to a large cavern; but instead of any outlet, he found himself in the presence of a huge Griffin, who was sitting on his tail, and smoking his pipe with great gravity. This respectable personage, it seems, was possessed of a great treasure, which was in constant danger of being filched from him by his mortal enemies, the Serpents, so that he was infinitely distressed for want of his natural rest, from the necessity of keeping watch night and day. Knowing the Dog's honesty, therefore, he determined to retain him in his service, to stand sentry while he himself enjoyed his repose. The Dog was extremely reluctant to the proposal, but he had no alternative; and having once taken *aries* in the service of his imperious master, he continued to discharge his duty so honestly and vigilantly (in spite of many temptations to the contrary), that the snake confederacy was at length totally broken up, and the Griffin rewarded his faithful attendant by giving him his liberty. The Dog immediately set off in high spirits to the house of his cousin the Cat; but, alas! he found his wily rival had not failed to improve his time to the uttermost, and had so prejudiced Grimalkin against him, that she treated him like a common fortune-hunter, and slammed the door in his face. Greatly irritated and vexed at this unworthy reception, the poor Dog retired to a distance,

vowing vengeance upon his malicious rival "the first convenient opportunity."

One morning a great "sensation" was excited among the bestial community of that quarter by the news that a stranger of high rank had arrived over night, and taken up his lodgings with his retinue and equipage at a certain commodious cavern. This was no other than his highness the Griffin, who, it was said, travelled with his only daughter—a young lady who had lately been left an immense fortune (all at her own disposal) by her uncle, the Dragon. The gossiping Magpie was of course instantly on the *qui vive*, to learn every thing concerning these important visitors, and had no sooner informed herself of all the particulars, than she kindly set off to detail the interesting news to the Cat. She found Grimalkin at breakfast with Reynard, who, with his hand on his heart, was whispering vows of ineffable love to his blushing mistress. The news of the Magpie disconcerted the loving pair not a little—Reynard for reasons which will be afterwards seen, and Puss at the thoughts of having such a formidable rival so near her. But her fears were quieted by the ardent protestations of her suitor. In the evening the Fox slipped away towards the Griffin's habitation, for the rumour respecting Miss Griffin's great wealth had made a wonderful impression on his mind. Now, there were two holes in the rock, one below, one above—an upper story and an under story; and while the Fox was peering about, he saw a great claw from the upper hole beckoning to him.

"Ah, ah!" said the Fox, "that's the wanton young Griffiness."

He approached, and a voice said—

"Charming Mr Reynard! do you not think you could deliver an unfortunate Griffiness from a barbarous confinement in this rock?"

"Oh!" cried the Fox, tenderly, "what a beautiful voice! and, ah, my poor heart, what a lovely claw! Is it possible that I hear the daughter of my lord, the great Griffin?"

"Hush, flatterer! not so loud if you please. My father is taking an evening stroll, and is very quick of hearing. He has tied me up by my poor wings in the cavern, for he is mightily afraid of some beast running away with me. You know I have all my fortune settled on myself."

"Talk not of fortune," said the Fox; "but how can I deliver you? Shall I enter and gnaw the cord?"

"Alas!" answered the Griffiness, "it is an immense chain I am bound with. However, you may come in, and talk more at your ease."

The Fox peeped cautiously all round, and seeing no sign of the Griffin, he entered the lower cave and stole up stairs to the upper story; but as he went on, he saw immense piles of jewels and gold, and all sorts of treasure, so that the old Griffin might well have laughed at the poor Cat being called an heiress. The Fox was greatly pleased at such indisputable signs of wealth, and he entered the upper cave, resolved to be transported with the charms of the Griffiness.

There was, however, a great chasm between the landing-place and the spot where the young lady was chained, and he found it impossible to pass; the cavern was very dark, but he saw enough of the figure of the Griffiness to perceive, in spite of her petticoat, that she was the image of her father, and the most hideous heiress that the earth ever saw!

However, he swallowed his disgust, and poured forth such a heap of compliments, that the Griffiness appeared entirely won. He implored her to fly with him the first moment she was unchained.

"That is impossible," said she, "for my father never unchains me except in his presence, and then I cannot stir out of his sight."

"The wretch!" cried Reynard; "what is to be done?"

"Why, there is only one thing I know of," answered the Griffiness, "which is this: I always make his soup for him; and if I could mix something in it that would put him fast to sleep before he had time to chain me up again, I might slip down and carry off all the treasure below on my back."

"Charming!" exclaimed Reynard, "what invention! what wit! I will go and get some poppies directly."

"Alas!" said the Griffiness, "poppies have no effect upon Griffins; the only thing that can ever put my father fast to sleep is a nice young cat b-dled up in his soup; it is astonishing what a charm that has upon him. But where to get a cat? it must be a maiden cat too!"

Reynard was a little startled at so singular an opiate. "But," thought he, "Griffins are not like the rest of the world, and so rich an heiress is not to be won by ordinary means."

"I do know a cat, a maiden cat," said he, after a short pause, "but I feel a little repugnance at the thought of having her boiled in the Griffin's soup. Would not a dog do as well?"

"Ah, base thing!" said the Griffiness, appearing to weep, "you are in love with the Cat, I see it; go and marry her, poor dwarf that she is, and leave me to die of grief."

The Fox, seeing that nothing else would appease his new mistress, made no further scruple, and agreed to devote his former one as a soporific to the wakeful old Griffin. It was then arranged that Miss Griffin should sling a basket out of the window by a rope, which was to be drawn up upon a signal given by Reynard, who

did not doubt of falling upon some expedient to induce Puss to get into it. With this fell purpose he returned to his destined victim, to whom he deputed himself with so much gallantry, that she thought him more amiable than ever. He proceeded to tell her that he had just been to visit the Griffin, who was a most charming person—quite the air of the court; that the Magpie had been only hoaxing them about his having a daughter; that having informed the old gentleman of their (Reynard and Puss's) intended nuptials on the following evening, nothing would please him but he must give a ball and supper on the occasion. Puss was almost beside herself at the prospect of mingling in such high company; and her admiration of the Griffin's kindness and condescension reached its height, when Reynard informed her that as the old gentleman's state apartments were in the second story, he actually designed to pull up the visitors in a basket with his own claw. But the great were always so amiable!

When the appointed hour next evening arrived, the young couple prepared to set out, when, on looking out of the window, lo! there sat the Dog at a short distance from the house, watching, no doubt, to wreak his vengeance on his malicious and successful rival. Reynard was sadly puzzled how to behave so as at once to escape the fury of the Dog, and maintain a character for courage before his mistress; but his fertile brain at last devised a scheme. He desired Puss to walk on before and wait for him at a certain turn of the road, saying, that, if they went out together, the Dog would be sure to insult them, knowing that he (Reynard) would be prevented from resenting such conduct by the presence of a lady; but that, if he went out by himself, the cowardly fellow would not dare to speak to him. Puss accordingly set out, and stalked haughtily past the poor Dog, without deigning the slightest reply to the humble advances he made to her. His rage at the Fox was increased tenfold by this occurrence, but great was his joy when, turning towards the house, he observed that Puss had inadvertently left the door open behind her. He rushed furiously in, reckoning his hour of vengeance at length come; but what was his surprise on finding Reynard lying on a truss of straw, rolling his eyes and gnashing his teeth as if in the agonies of death! The honest Dog's anger was all converted into pity at this piteous spectacle, and he compassionately inquired into the nature of his indisposition. The Fox faltered out that he was dying, and earnestly solicited the Dog's forgiveness for the injuries he had done him. This the Dog readily complied with, and entreated to know if there was nothing he could do to relieve him. "Alas, no!" replied the Fox, "unless you would be kind enough to dip your paw amongst the water which you will find in that hole in the wall, and touch my tongue with it, to cool the raging thirst that burns me up."

The unsuspecting Dog immediately reached up to the hole, but had no sooner inserted his paw than Reynard pulled a string which he had concealed amongst the straw, and which caught fast the Dog's paw in a running noose. Jumping up, the Fox fastened the end of the string to a nail in the wall, and advising his captive to "beware for the future of sudden conversions," walked out after the Cat, with whom he soon after arrived at the Griffin's habitation. Here they found the fatal basket already let down, and the Griffiness (as Reynard thought) standing ready to pull it up again. The Fox assisted poor Puss into it; up she went—one piteous mew was heard—and no more. "So much for the Griffin's soup!" thought Reynard. After some time had elapsed, the basket again descended, and the Griffiness cried out cheerfully from the window, "All's right, my dear Reynard; my papa has finished his soup, and sleeps as sound as a rock! All the noise in the world would not wake him now till he has slept off the boiled cat, which won't be these twelve hours. Come and assist me in packing up the treasure; I should be sorry to leave a single diamond." "So should I," quoth the Fox; so he put himself into the basket as comfortably as he could, and up he went. It rested, however, just before it reached the window, and the Fox felt with a slight shudder the claw of the Griffiness stroking his back. "Oh, what a beautiful coat!" quoth she, caressingly. "You are too kind," said the Fox; "but you can feel it more at your leisure when I am once up. Make haste, I beseech you." "Oh, what a beautiful bushy tail! Never did I feel such a tail!" "It is entirely at your service, sweet Griffiness," said the Fox, impatiently; "but you pinch it a little too hard. Pray let me in." Down dropped the basket, but not so the Fox, who was left suspended by the tail half-way down the rock, by means of the same sort of noose as he had snared the Dog with. Reynard yelled out with pain and consternation—when the door of the rock opened, and out stalked the Griffin, smoking his pipe, and accompanied by a vast crowd of all the fashionable beasts in the neighbourhood. The Fox, who saw he had been cheated and gulled, grinned with rage, as each of the company—even the donkey—passed his jest upon him: "but at all events," said he, "I have played the same trick to the Dog; go and laugh at him too, gentlemen; he deserves it as much as me." "Pardon me," said the Griffin, taking the pipe from his mouth; "one never laughs at the honest." While they were speaking, the Dog, who had extricated his paw with much difficulty, came running forward in search of his treacherous rival; but when he saw himself already

avenged, his first inquiry was for his cousin Puss. "Never mind her," said the Griffin; "you shall marry my daughter, the Griffiness, with all her treasure, and all the bones, too, you guarded so faithfully." But the Dog spurned at the offer, and declared he could never be happy without his dear cousin; whereupon Puss, more beautiful than ever, rushed out of the cavern and threw herself into his paw. "You understand, Mr Reynard?" said the Griffin. "I have no daughter, and it was me you made love to. Knowing what sort of a creature a Magpie is, I amused myself with hoaxing her—the fashionable amusement at court, you know." Reynard could endure this no longer; he made a violent spring, and came to the ground—but without his tail; and ran off into the wood, pursued by the hootings and laughter of all his fellow-beasts.

So terminated the selfish and heartless schemings of Master Fox. It is to be regretted that those of his human prototypes have not always the like merited fate.

## BIOGRAPHIC SKETCHES.

PASCAL.

In our Biographic Sketches many striking instances have been given of men of extraordinary genius and perseverance raising themselves from obscurity to fame and fortune, and generally in such a way as to offer to the young examples which they might follow with signal benefit to themselves and their fellow-creatures. We now present a Biographic Sketch of a different character: we give the life of an individual who has been described by Bayle, a celebrated philosopher, as "one of the sublimest geniuses whom the world ever produced—a prodigy—a paradox in the human species," a person whose name has been rung in every seat of learning in Christendom; yet withal, one in whose career latterly we find a beacon to be shunned, a course of action to be condemned and lamented, rather than an example to be imitated or respected.

Blaise Pascal, a Frenchman, was born at Clermont, in Auvergne, in the year 1623. His father was a judge in one of the district courts, and is reported to have been a man of considerable learning, and an able mathematician. As Blaise was his only son, so great was his affection for him, that in the year 1631 he relinquished his official situation, and settled at Paris, in order that he might himself undertake the employment of being his tutor. From his infancy, young Pascal gave evidence of a very extraordinary capacity. He was very inquisitive, and desirous of knowing the reasons of every thing; and when good reasons were not given him, he would search for better; nor would he ever be satisfied, but by such as appeared to him to be well founded. What we are told concerning his manner of learning the mathematics, and his rapid progress in that science, is very astonishing. His father, perceiving in him an extraordinary inclination to reasoning, was afraid lest the knowledge of the mathematics should prevent him from learning the languages. He therefore resolved to keep from him, as much as he could, all notions of geometry, locked up all the books that treated of it, and refrained even from speaking of it in his presence. Yet he could not refuse to give this general answer to the importunate curiosity of his son—"Geometry is a science which teaches the way of making exact figures, and of finding out the proportions between them," but at the same time forbade him to speak or think of it any more. The slight idea which had been thus conveyed to him of the science, occupied young Blaise's thoughts, who was now only twelve years of age, and led him in his hours of recreation to make figures on the chamber-floor with charcoal, the proportions of which he sought out, laying down definitions and axioms, and then going on to demonstrations. So far had he proceeded with his inquiries, that he had come to what was just the same with the thirty-second proposition of the first book of Euclid, when he was one day surprised by his father in the midst of his figures, who asked him what he was doing. He replied, that he was searching for such a thing, which was just that proposition of Euclid. When asked afterwards how he came to think of this, he answered that it was because he had found out such another thing; and so, going backwards, he at length came to the definitions and axioms which he had formed to himself. Astonishing as it may appear, that a boy should be capable of thus working his way into the mysteries of a science, without having seen any treatise upon the subject, or even knowing any thing of the terms; and surprising as it is that he should have, in the course of his boyish researches, hit upon exactly the



same combination of figures which had been adopted by an ancient philosopher for proving a particular mathematical truth, yet we are assured of the fact by Madame Perier, Pascal's sister, and several other writers, the credit of whose testimony is unquestionable.

From this time young Pascal had full liberty to indulge his genius in mathematical pursuits, and was furnished by his father with Euclid's Elements, of which he made himself master in an incredibly short time, without any assistance. So wonderful was his proficiency in the sciences, that at the age of sixteen he wrote "A Treatise on Conic Sections," which, in the judgment of the most learned men of the time, was considered to be a great effort of genius. At the age of nineteen, our young mathematician had contrived a machine, capable of making a number of arithmetical calculations without any other assistance than the eye and the hand. This was esteemed a very wonderful thing, and would have done credit to any man versed in science, and much more to such a youth. About this time the state of his health becoming impaired, owing most probably to the intense nature of his studious application, he was obliged to suspend his labours for the space of four years. At the age of twenty-three, having seen Torricelli's experiments respecting a vacuum and the weight of the air, he directed his attention to those subjects, and made several new experiments, by which the weight of the atmosphere at different heights—a scientific fact of great moment—was fully demonstrated. The results of his investigations were immediately published, and communicated by him to all the learned bodies in Europe.

The reputation which Pascal thus acquired by his scientific labours occasioned his being frequently consulted by some of the greatest mathematicians and philosophers of the age, who applied for his assistance in the resolution of various difficult questions and problems. Among other subjects on which his ingenuity was employed, was the solution of a problem proposed by Father Mersenne, which had baffled the penetration of all who attempted it. This problem was, to determine the curve described in the air by the nail of a coach-wheel, while the machine is in motion; which curve was then called a roulette, but is now commonly known by the name of cycloid. As a spur to genius, M. Pascal offered a reward of forty pistoles to any one who should give a satisfactory answer to it. No person having succeeded, he published his own solution at Paris; but as he now began to grow disgusted with the sciences, he would not send it into the world under his own name, but prefixed to it that of A. D'Etonville. This exertion of his genius was a triumph over all the old mathematicians of Europe, and it was made in circumstances which cannot but excite astonishment; for his sister informs us that he made the discovery, as it were, in spite of himself, and to his own great surprise, while passing sleepless nights in his bed, tormented by severe paroxysms of the toothache. Before this time he had drawn up a table of numbers, which, from the form in which the figures in it are disposed, he called his "Arithmetical Triangle." Of this table he has been spoken of as the inventor; but Dr Hutton has shown, in the first volume of his "Mathematical Tracts," that such a table of numbers, and many properties of them, had been treated of more than a century before, by Cardan, Stifelius, and other arithmetical writers.

When M. Pascal was in the twenty-fourth year of his age, and the highest expectations were entertained of the advantages to science from his future labours, he all at once renounced the study of the mathematics and natural philosophy, as well as all human learning, and devoted himself wholly to a life of mortification and prayer. This change in him was occasioned by his reading the books of some of those ascetic religious who unnaturally make the height of virtue to consist in an abstinence from the enjoyment of those blessings which a kind Providence affords, and strangely consider the miseries which his creatures inflict upon themselves, to be the most acceptable sacrifice which they can offer to a benevolent Deity. Their superstitious and gloomy notions were unhappily embraced by M. Pascal, and he became as great a devotee as almost any age has produced. From this time he renounced all pleasure and all superfluity; and to this system he adhered in the illnesses to which he was frequently subject, being of a very infirm habit of body. He not only denied himself the most common gratifications, but he also took without reluctance, and even with pleasure, either as nourishment or as medicine, whatever was disagreeable to the senses; and he every day retrenched some part of his dress, food, or other things, which he considered as not absolutely necessary. He occasionally wore an iron girdle full of points next to his skin, and when any vain thought came into his mind, or he took pleasure in any circumstance, he gave himself some blows with his elbow, to increase the violence of the smart, and by that means put himself in mind of his duty. During the latter years of his life, his principal relaxation from the rigorous system which he prescribed to himself, consisted in visits which he paid to the churches where some relics were exposed, or some solemnity observed; and for that purpose he had a spiritual almanack, which informed him of the places where particular services were performed.

From being one of the most esteemed men of his

age or country, Pascal now became one of the most contemptible, and his memory in the present day can only be regarded with pity. While in this deplorable prostration of body and mind, he nevertheless showed that intellect was not dead within him, yet he exercised his faculties on a subject far below the dignity of his previous studies. He entered keenly into a quarrel betwixt two classes of monks, called Jansenists and Jesuits, taking the part of the former, and endeavouring to prove, both by railery and argument, that the Jesuits had formed a design to corrupt mankind—a design which no sect or society ever did or can hope to carry into effect. The work which Pascal wrote on this occasion was entitled "Provincial Letters;" and both from its serious tone of reasoning and its happy turns of wit, as well as from the humour and taste of the age, it obtained very extensive celebrity. This controversial production, which is now very properly forgotten, did less to establish the fame of this extraordinary man than a work which he wrote about the same period, of a devotional and moral nature, but which was not given to the world till after his decease. The manner in which this work was written is curious. While living in ascetic retirement from the world, he was in the habit of writing down stray thoughts on religious and moral subjects on the first piece of paper which he could find. After his death these bits of paper were found piled upon different pieces of string, without any order or connection; and being exactly copied as they were written, they were afterwards arranged and published under the title of "Pensées de M. Pascal," &c. (Thoughts of M. Pascal upon Religion and some other subjects.) These pensées, or thoughts, have been translated from the French into the English and various other languages, and exhibit striking traits of his sublimity of genius, beautiful turn of sentiment, as well as force and elegance of expression. They are, however, in many places irreconcilable with just and rational views of religion, and are calculated to reflect dishonour on the wisdom and benevolence of the Deity. They gave room for the sneers of Voltaire and others, and there is a likelihood that they have done more harm than good to the cause which their author so warmly but indiscreetly advocated.

Pascal was little more than thirty years of age when he was engaged in framing these controversial and devotional productions, and like most individuals who have shown an exceeding precocity of genius, he declined both in body and mind much earlier than is the ordinary lot of mankind. At thirty-six years of age he had the infirmity of a man of fourscore; but there can be little doubt that this premature decay was greatly accelerated by his mistaken notions of what constitutes true piety and sound morals. Besides punishing himself by wearing an iron girdle full of points next his skin, he broke off all voluntary intercourse with society, changed the place of his abode, and spoke to no one, not even to his own servants, whom he hardly ever admitted into his room. He made his own bed, fetched his dinner from the kitchen, and carried back the plates and dishes in the evening; so that he employed his servants only to cook for him, to go on a few unavoidable errands, and to do such things for him as he was incapable of performing himself. Nothing was to be seen in his chamber but two or three chairs, a table, a bed, and a few books. It had no kind of ornament whatever; he had neither a carpet on the floor, nor curtains to his bed. These circumstances, however, did not prevent him from occasionally receiving visits; and when his friends appeared surprised to see him thus without furniture, he replied, that he had what was necessary, and that any thing more would be a superfluity unworthy of a wise man.

His health now rapidly declined, and his disorders so enfeebled his organs, that his reason became in some measure affected. In these circumstances he met with an accident which produced an unfavourable impression upon his imagination, not to be effaced, excepting during short intervals, by the soothing persuasions of his friends and of his confessor. In the year 1654, the state of weakness to which he was reduced having alarmed his physicians, they prescribed to him taking the air and gentle exercise. As he was one day crossing the Seine at the bridge of Neuilly, in a coach and four, the two leading horses became unmanageable at a part where the parapet was down, and plunged over the side into the river. Happily, their weight broke the traces, by which means the other horses and the carriage were extricated on the brink of the precipice. The effect on the feeble and languishing frame of M. Pascal may easily be conceived. It was with great difficulty that he was recovered at all from a long swoon; and he was never reinstated in the calm possession of his mental faculties. He always imagined that he saw a deep abyss on the left side of him, and he would never sit down till a chair was placed there, to secure him from danger. He also persuaded himself that he had a kind of vision, the particulars of which he preserved in a memorandum on a piece of paper, which he always carried about him between the cloth and lining of his coat. After languishing for some years in this imbecile state of body and mind, Pascal died at Paris in 1662, when about thirty-nine years of age.

The moral which may be drawn from the life of Pascal is so obvious that it hardly requires to be pointed out. We find here a man who inherited from nature all the powers of a versatile genius—a geometrical

the first rank; a profound reasoner; an elegant writer, whose collected works extend to many large volumes; and a person who was remarkable for the amiableness of his disposition: yet we find also a man who forsook the clear path of duty to indulge in a system of monstrous asceticism, alike repugnant to common sense and pure devotion; and, therefore, one who was guilty of desecrating and trampling under foot those valuable faculties bestowed upon him by his Creator for a wise and beneficent purpose.

#### OPENING OF THE COFFIN OF CHARLES THE FIRST.

It is stated by Clarendon, in his History of the Rebellion, or great civil war in England, that the body of Charles I., though known to have been interred in St George's Chapel at Windsor, could not be found when searched for there some years afterwards. Charles I. was beheaded in the year 1648-9; and from that period till a recent time, the place of sepulture of his body remained a mystery, although conjecture continued to point to some spot in or about St George's Chapel at Windsor. An accident at last elucidated a point in history which had thus been involved in obscurity. In the course of making some repairs and alterations at the place of royal sepulture, at Windsor, in 1813, it was necessary to form a passage to what is called the tomb-house from under the choir of the chapel. In constructing this passage, an aperture was made accidentally in one of the walls of the vault of Henry VIII., through which the workmen were enabled to see, not only the two coffins which were supposed to contain the bodies of Henry and Queen Jane Seymour, but a third also, covered with a black velvet pall, which was presumed to hold the remains of Charles I. On representing the circumstance to the Prince Regent, he perceived at once that a doubtful point in history might be cleared up by opening this long-concealed vault; and, accordingly, an examination was ordered. This was done on the 1st of April 1813, the day after the funeral of the Duchess of Brunswick, in the presence of his Royal Highness himself and other distinguished personages.

The vault being opened, the first thing done was the removal of the pall, whereupon there was disclosed a plain leaden coffin, with no appearance of ever having been inclosed in wood, and bearing the inscription "KING CHARLES, 1648," in large legible characters, on a scroll of lead encircling it. A square opening was then made in the upper part of the lid, of such dimensions as to admit a clear insight into its contents. These were, an internal wooden coffin, very much decayed, and the body carefully wrapped up in cerecloth, into the folds of which a quantity of unctuous or greasy matter, mixed with resin, as it seemed, had been melted, so as to exclude, as effectually as possible, the external air. The coffin was completely full; and from the tenacity of the cerecloth, great difficulty was experienced in detaching it successfully from the parts which it enveloped. Wherever the unctuous matter had insinuated itself, the separation of the cerecloth was easy; and when it came off, a correct impression of the features to which it had been applied was observed in the unctuous substance. At length the whole face was disengaged from its covering. The complexion of the skin of it was dark and discoloured. The forehead and temples had lost little or nothing of their muscular substance; the cartilage of the nose was gone, but the left eye, in the first moment of exposure, was open and full, though it vanished almost immediately; and the pointed beard, so characteristic of the period of the reign of King Charles, was perfect. The shape of the face was a long oval; many of the teeth remained; and the left ear, in consequence of the interposition of the unctuous matter between it and the cerecloth, was found entire.

It was difficult at this moment to withhold a declaration, that, notwithstanding its disfigurement, the countenance did bear a strong resemblance to the coins, the busts, and especially to the pictures of King Charles I., by Vandyke, by which it had been made familiar to us. It is true that the minds of the spectators of this interesting sight were well prepared to receive this impression; and it will not be denied that the shape of the face, the forehead, an eye, and the beard, are the most important features by which resemblance is determined.

When the head had been entirely disengaged from the attachments which confined it, it was found to be loose, and without any difficulty was taken up and held to view. It was quite wet, and gave a greenish-tinge to paper and to linen which touched it. The back part of the scalp was entirely perfect, and had a remarkably fresh appearance; the pores of the skin being more distinct, as they usually are when soaked in moisture, and the tendons and ligaments of the neck were of considerable substance and firmness. The hair was thick at the back part of the head, and in appearance nearly black. A portion of it, which has since been cleaned and dried, is of a beautiful dark-brown colour. That of the beard was a redder brown. On the back part of the head it was more than an inch in length, and had probably been cut so short for the convenience of the executioner, or perhaps for the piety of friends soon after death, in order to furnish memorials of the unhappy king.

On holding up the head, to examine the place of separation from the body, the muscles of the neck

had evidently retracted themselves considerably; and the fourth cervical vertebra was found to be cut through its substance transversely, leaving the surfaces of the divided portions perfectly smooth and even—an appearance which could have been produced only by a heavy blow inflicted with a very sharp instrument, and which furnished the last proof wanting to identify King Charles I.

After this examination of the head, which served every purpose in view, and without examining the body below the neck, it was immediately restored to its situation, the coffin was soldered up again, and the vault closed.

Neither of the other coffins had any inscription upon them. The larger one, supposed on good grounds to contain the remains of King Henry VIII., measured six feet ten inches in length, and had been enclosed in an elm one of two inches in thickness; but this was decayed, and lay in small fragments near it. The leaden coffin appeared to have been beaten in by violence about the middle; and a considerable opening in that part of it exposed a mere skeleton of the king. Some beard remained upon the chin, but there was nothing to discriminate the personage contained in it.

The smaller coffin, understood to be that of Queen Jane Seymour, was not touched; mere curiosity not being considered by the Prince Regent as a sufficient motive for disturbing these remains.

On examining the vault with some attention, it was found that the wall at the west end had at some period or other been partly pulled down and repaired again, not by regular masonry, but by fragments of stones and bricks, put rudely and hastily together without cement. From this it was inferred that the ceremony of interment was a very hasty one, a circumstance warranted by the history of the troublesome times in which Charles was brought to the scaffold. It may be added, that an authentic account of the above discovery and circumstances attending it, was substantiated by the signature of the Prince Regent, and deposited in the British Museum. The present statement is abridged from the account given in a volume of pamphlets, entitled, "Essays and Orations," published by J. Murray, London, 1831.

#### THE SLAVE COAST.

In a work just published, entitled "European Colonies, in various parts of the World," by John Howison, the author of an entertaining production, "Foreign Scenes and Travelling Recreations," we are presented with an interesting account of the European establishments in West Africa, and the causes of their decay:—"All the European establishments upon the west coast of Africa (says he), by whatever nation they were formed, had the same general object in view, and were conducted in the same general way. In speaking of them, I use the past tense, because, since the abolition of the slave-trade, they have universally and exceedingly declined in importance and value, and because many of them have latterly been altogether abandoned. As soon as the parties concerned had fixed upon the site of their proposed commercial establishment, they began to erect a fort of greater or less magnitude, having previously obtained permission to that effect from the natives. The most convenient situation for a building of the kind was considered to be at the confluence of a river with the sea, or upon an island lying within a few miles of the coast. In the first case, there was the advantage of inland navigation; and, in the second, that of the security and defensibility of an insular position, besides its being more cool and healthy than any other.

The walls of the fort always enclosed a considerable space of ground, upon which were built the necessary magazines for the reception of merchandise, and also barracks for the soldiers and artificers, and a depot for slaves; so that, in the event of external hostilities, the gates might be shut, and the persons and the property belonging to the establishment placed in security. The quarters for the officers and agents employed at the factory were in general erected upon the ramparts, or at least adjoining them; while the negroes in their service, and any others that might be attracted to the spot, placed their huts outside of the walls of the fort, but under the protection of its guns.

The command of the establishment was vested in the hands of one individual, who had various subordinates, according to the extent of the trade carried on at the place; and if the troops who garrisoned the fort exceeded twenty or thirty, a commissioned officer usually had charge of them. The most remarkable forts were St George del Mina, erected by the Portuguese, though it subsequently fell into the hands of the Dutch; Cape Coast Castle, the principal establishment of the English; Fort Louis, at the mouth of the Senegal, generally occupied by the French; and Goree, situated upon an island of the same name, near Cape Verde. Most of these forts mounted from fifty to sixty pieces of cannon, and contained large reservoirs for water, and were not only impregnable to the negroes, but capable of standing a regular siege by an European force.

The individuals next in importance to the director or governor, were the factors, who ranked according to their standing in the Company's service. The se-

nior generally remained at head-quarters, and had the immediate management of the trade there, and the care of the supplies of European merchandise which were always kept in store. The junior factors were employed in carrying on the traffic in the interior of the country, which they did sometimes by ascending the rivers in armed vessels, and exchanging various articles for slaves, gold-dust, and ivory, with the negroes inhabiting the neighbourhood; and sometimes by establishing themselves for several months in a large town or populous district, and, as it were, keeping a shop to which the natives might resort for traffic.

The European subordinates of the establishment consisted of clerks, book-keepers, warehousemen, artificers, mechanics, gunners, and private soldiers, all of whom had particular quarters assigned for their abode, and lived under military discipline. The soldiers employed in the service of the different African companies were mostly invalids, and persons who had been dismissed from the army on account of bad conduct. Destitute of the means of subsistence at home, such men willingly engaged to go to the coast of Africa, where they knew that they would be permitted to lead a life of ease, indolence, and licentiousness, and be exposed to no danger except that of a deadly climate, which was in reality the most certain and inevitable one that they could any where encounter. Few of the troops in any of the forts were fit for active duty, which was of the less consequence, because they were seldom or never required to fight except upon the ramparts of the place in which they might be quartered, and not often even there. Hence they spent their time in smoking, in drinking palm-wine, and in gaming, and were generally carried off by fever or dissipation within two years after their arrival in the country. A stranger on first visiting any of the African forts felt that there was something both horrible and ludicrous in the appearance of its garrison, for the individuals composing it appeared ghastly, debilitated, and diseased, to a degree that is unknown in other climates; and their tattered and soiled uniforms, resembling each other only in meanness and not in colour, suggested the idea of their wearers being a band of drunken deserters, or of starved and maltreated prisoners of war.

Each company was in the practice of annually sending a certain number of ships to its respective establishments, freighted with European goods suitable for traffic; while its factors in Africa had in the mean time been collecting slaves, ivory, gum-arabic, and other productions of the country; so that the vessels on their arrival suffered no detention, but always found a return cargo ready for them. Before this system was adopted, the African trade was carried on by private ships, which made a coasting voyage, and touched at every place which seemed likely to afford produce of any kind.

Many months were often spent in this way before a moderate cargo could be obtained; for, owing to the smallness of the negro villages on the coast, and the general indolence and want of foresight of their inhabitants, the traders were seldom able to purchase more than a few slaves and elephants' teeth at any one of them; and it not unfrequently happened that they found nothing at all to repay their time and trouble. This tedious and tantalising kind of navigation always proved fatal to many of those engaged in it. The seamen were attacked with scurvy, or fell victims to the unhealthiness of the climate, or sunk under their fatigues; and their vessels, without hands to manœuvre them, were left to the mercy of winds and waves. At the same time, the slaves who might be collected on board, and whom it was necessary to keep in close confinement on account of the nearness of the shore, shared in the sickness, and rapidly perished from pestilential disorders.

Though the forts were principally employed as places of safe deposit for merchandise received from Europe, or collected at outposts, they were also generally the scene of a considerable trade, being resorted to for that purpose, not only by the coast negroes, but often also by dealers from the interior of the country, who would bring slaves, ivory, and gold-dust for traffic. Persons of this description were always honourably, and even ceremoniously received by the governor, or by the factors, and conciliated in every possible way, lest they might carry their goods to another market. They were invited to enter the fort, and were treated with liqueurs, sweetmeats, and presents, and urged to drink freely; and no sooner did they show symptoms of confusion of ideas, than the factors proposed to trade with them, and displayed the articles which they were disposed to give in exchange for their slaves, &c. The unsuspicious negro merchant, dazzled by the variety of tempting objects placed before him, and exhilarated by wine or brandy, was easily led to conclude a bargain little advantageous to himself; and before he had fully recovered his senses, his slaves, ivory, and gold-dust, were transferred to the stores of the factory, and he was obliged to be contented with what he had in his moments of inebriety agreed to accept in exchange for them.

The establishment of these factories led to that of colonies, but all attempts of this kind have proved unsuccessful. Two principal attempts at colonisation have been made by the British in West Africa—one at Sierra Leone, under the auspices and protection of government, and the other by an association of private individuals, who fixed upon the island of

Bulama as the theatre of their operations. Neither of these have been successful. With respect to the colony of Sierra Leone, which has cost Britain so much money and so many lives, every one knows that it is a complete failure. The emancipated and delivered negroes, for whom it was intended as an asylum, soon grew disgusted with the spot, and retired into the interior of the country. The native merchants, who were expected to have come from Central Africa to trade at the settlement, have never yet made their appearance there. Twenty-two thousand individuals of different descriptions joined the establishment at Sierra Leone between 1787 and 1826, and of these only thirteen thousand remained, or were in existence, at the end of the latter year. The European emigrants consisted almost exclusively of disbanded and pensioned soldiers, who, it must be supposed, were sent to the coast of Africa, not that they might give the negroes a taste for civilised life, or improve their morals, but that they might cease to be a burthen to government, and a pest to their native country. Of these men, fewer have perished than could have been expected, considering their dissipated habits; for out of one thousand two hundred and twenty-two that joined the colony between 1817 and 1819, it appears that nine hundred and forty-nine were alive in 1826. But the number of civil and military officers who have fallen victims to the climate is immense; and Sierra Leone may now be considered untenable by Europeans, or at least not worth retaining. When the public functionaries shall have been withdrawn from it, when it shall no longer enjoy a local government, and when its laws shall cease to be administered or observed, its motley and partially-instructed population, unable to relish the simplicity of negro life, will in all likelihood become pirates and banditti; and the British nation may hereafter find it necessary, for the security of her African trade, to exterminate a colony which she has long protected, and has hitherto fostered with useless and unproductive care."

#### MACDONELL OF TIENDRICH.

THE man who struck the first blow in the insurrection of 1745, was Macdonell of Tiendrich, a gallant gentleman of Lochaber, in which district the incident took place. As there is an interest both in the affair we allude to, and in the subsequent fate of its hero, we shall form the whole into a brief narrative.

At the time when Prince Charles was about to raise his standard in Glenfinnan, the governor of Fort Augustus thought proper to send a reinforcement of two companies of the Scots Royals to Fort William; and the men set off, on the 16th of August, under the command of Captain Scott, a son of Scott of Scots-tarvit.\* The distance was twenty-eight miles, and the road, for the greater part of that space, lay along the side of a lofty mountain. Macdonell of Tiendrich, who was then preparing to join the Prince, got early notice of the march of the soldiers, and sent to his friend Keppoch on the one hand, and to Glenarry on the other, to apprise them of the event. He then posted himself with a dozen of his own followers at the well-known and difficult pass of High Bridge, on the Spean, and, when the military approached, caused his bagpipes to strike up a pibroch. Captain Scott, seeing a few Highlanders on the bridge, and knowing that the county was on the stir in favour of Prince Charles, sent forward a serjeant with his own servant to reconnoitre. These two individuals no sooner approached the Highlanders, than a party sprang out from concealment, and took them prisoners. By interspersing themselves with the rocks, and holding up their plaids between each other, the Highlanders now contrived to impress the king's officer with the idea that they were not only well posted, but much more numerous than they really were. He therefore commenced a retreat towards Fort William, though well aware that, before reaching that point, his men could not fail to be overpowered with fatigue. As the ground for two miles was open, and must have exposed the smallness of a pursuing party, Macdonell permitted the soldiers to retire for that distance unmolested. But as soon as they had passed the west end of Loch Lochy, and were entering upon the narrow road between the lake and the hill, out darted the mountaineers, and, ascending the precipices above the road, where there was shelter from both bush and stone, began to fire down upon the soldiers, who only retreated with the greater expedition.

The pursuers soon brought assistance to themselves by the noise of their pieces, and might, without great imprudence, have encountered the military in the open field. The enterprise, however, was brought to a conclusion without any regular contest. Captain Scott, seeing parties approaching in all directions, belonging to Keppoch, Glenarry, and Lochiel, thought it prudent to surrender, but not till two of his men had been slain and himself wounded. The soldiers, ninety in number, were taken as an offering to Prince Charles, and, arriving at Glenfinnan immediately after the rearing of the standard, were regarded as an earnest of the success of the insurrection. Tiendrich, who was allowed to have the principal honour of

\* Afterwards General Scott, and father-in-law to Mr Canning and the Duke of Portland.



the day, took that opportunity of presenting Prince Charles with a handsome gelding, which he had taken from Captain Scott, and which the Prince rode when he subsequently entered Perth.

The subject of this narrative served through the campaign, as a major in Keppoch's regiment, till the battle of Falkirk, when his military career was cut short by a very extraordinary adventure. In that engagement, the insurgents beat back the greater part of the royal army, and followed heedlessly on in pursuit, without observing that they left behind a portion of the right wing, who had never come into action. Major Macdonell followed the flying regulars for a considerable distance beyond his fellows, and, in returning, his attention was attracted to the royal artillery, which had been mired in a bog on the advance—for it will be recollected that

"Cope could not cope, nor Wade wade through the snow,  
Nor Hawley haul his cannon to the foe."

While he was amusing himself by an inspection of these field-pieces, a man came up, and informed him that he had better seek to regain his position, as the enemy was rallying at the town of Falkirk, with the design of returning to the charge. Tiendrich then proceeded to the original ground occupied by the Highland forces, and on his way happened to see that portion of the British army which had never been engaged, and which was still keeping its ground, apparently ignorant of all that had been going on in its neighbourhood. Mistaking them in the dusk for Lord John Drummond's regiment and the French picquets, Macdonell made up to them with his sword in his hand, calling lustily as he advanced, "Gentlemen, why do ye stand here? why don't ye pursue the dogs?" and he was in the midst of them before he discovered his mistake. A cry was raised, "Here is a rebel, here is a rebel!" Macdonell attempted to pass for one of the loyal clan Campbell, of whom there was a considerable band in the royal army; and the dusky state of his white cockade after the smoke of the action might have favoured the deception. But General Huske, who was in command over this part of the army, at once perceived, from the appearance of his sword, that he was of the opposite and victorious party, and called out to his men to shoot the dog instantly. Seven or eight men had their pieces presented to his breast, when Lord Robert Kerr, a humane young officer, of the Lothian family (afterwards killed at Culloden), beat down their muskets, and interceded for his life. Macdonell, then finding it necessary to surrender his arms, said, with just pride, that he would prefer doing so to an officer, as he had the honour to be an officer himself; and he advanced to Huske for that purpose. The general, however, swore he would not do a rebel any such honour, and Lord Robert politely stepped forward to receive the arms of the unfortunate Highlander. Tiendrich could not perform even this humiliating action without a recollection of his dignity of blood and station, and the air with which he pulled forth his pistol impressed the brutal general with the idea that he was going to shoot him. On his expressing this fear in his own vulgar way, the gallant mountaineer drew himself up with pride, and said he could do nothing unbecoming a gentleman. He was then mounted bound on horseback, and conducted by the retreating soldiery towards Edinburgh, passing in the first mile of their march almost through the midst of the Highland army, whose notice, however, they contrived to elude.

Macdonell of Tiendrich—the sole trophy brought by General Hawley from this ill-conducted and disgraceful battle—was confined for some months in Edinburgh Castle, amidst others of his own party, who had been taken into custody with or without arms. Among his fellow-prisoners was Mr Robert Forbes, of the Scottish Episcopal Church, from whose papers most of these facts are taken. Mr Forbes says of Macdonell, "He was a brave, undaunted, honest man, of a good countenance, and of a strong robust make. He was much given to pious acts of devotion [being a Catholic], and was remarkably a gentleman of excellent good manners. He bore all his sufferings with great submission and cheerfulness of temper." In the course of the summer (1746), he was removed to Carlisle to undergo his trial; and on the 24th of August, we find him writing to his friend Forbes as follows:—"Dear Sir—You have no doubt heard before now that our trials come on, the 9th of September; may God stand with the righteous. The whole gentlemen who came from Scotland are all together in one floor, with upwards of one hundred private men, so that we are much thronged. They have not all got irons as yet; but they have not forgot me, nor the rest of most distinction; and the whole will soon be provided. You'll make my compliments to Lady Bruce and Mr Clerk's family, but especially to Miss Mally Clerk, and tell her, that, notwithstanding my irons, I could dance a Highland reel with her. Mr Patrick Murray makes offer of his compliments to you, and I hope we'll meet soon."

The hope under which this letter was written was soon extinguished by the result of his trial. He was there found guilty, though, as happened in too many similar cases, upon evidence altogether false, and with reference to facts in which he had had no concern. His friends and legal agents had all entreated him to plead guilty, as the only chance of escape; but he was too zealous a partisan of the house of Stuart to make the submission which that would have implied to the Hanover dynasty. On their pressing the advice with

some importunity, he declared, in a tone which precluded all further argument, that, rather than do so, he would submit to be taken and hanged at the bar before the face of those judges by whom he was soon to be tried.

It would appear that some effort was made by his wife and other friends to intercede in his behalf with the government. On the 28th of September, he writes that he is "in good health, heart, and spirits." "If it is my fate," says he, "to go to the scaffold, I dare say that I'll go as a Christian and a man of honour ought to do. But it is possible that a broken ill-used major may be a colonel before he dies." All hope of pardon was soon proved to be vain: the government could not forgive one who had acted so remarkable a part in the late contest, and who had been taken with the blood of its servants still streaming from his sword. On the 17th of October, he addressed the following farewell letter to one of his friends in Edinburgh:—"My dear Sir—I received your's yesterday, and as I am to die to-morrow, this is my last farewell to you. May God reward you for your services to me from time to time, and may God restore my dear prince, and receive my soul at the hour of death. You'll manage what money Mr Stewart is due me, as you see proper; for my poor wife will want money much, to pay her rents and other debts.—I conclude with my blessings to yourself and to all the honourable honest ladies of my acquaintance in Edinburgh, and to all other friends in general, and in particular those of the Castle,† and I am with love and affection, my dear sir, yours till death, DONALD MACDONELL."

It is impossible to contemplate the fate of a man like Tiendrich without a feeling of interest. In a speech which he delivered on the scaffold, he declared, "It was principle, and a thorough conviction of its being my duty to God, my injured king, and oppressed country, which engaged me to take up arms under the standard and magnanimous conduct of his Royal Highness Charles Prince of Wales: I solemnly declare I had no bye-views in drawing my sword in that just and honourable cause."

#### MUSIC.

Sweet charmer of the cottage and the throne—  
The desert and the crowded city's throngs—  
Oh! let me hear thee, whilst I stand alone  
Among the green hills, captive to thy songs!  
Or when amid the world's unfeeling wrongs  
I dwell a prisoner—or when o'er me roll  
The mists of Fancy; yet to thee belongs  
To chain to imaged scenes my gladdened soul,  
And to unbosom thoughts beyond the world's control!

For thou, oh Music! canst assuage the pain,  
And heal the wound, which hath defied the skill  
Of sager comforters:—thou dost restrain  
Each wild emotion at thy wondrous will;  
Thou dost the rage of fiercest passions chill,  
Or lightest up the flames of soft desire,  
As through the mind thy plaints harmonious thrill,  
And thus a magic doth surround the Lyre,  
A power divine doth dwell amid the sacred quire!

Nature is full of thee:—the summer bower  
Respondeth to the songster's morning lay;  
The bee his concert keeps from flower to flower,  
As forth he sallies on his honied way;  
Brook calls to brook as down the hill they stray;  
The isles resound with song from shore to shore;  
Whilst viewless minstrels on the wings that play  
Consort strains in liquid measures pour  
To Thunder's deep-toned voice, or Ocean's sullen roar.

REV. W. B. CLARKE.

#### THE HEIRESS IN JEOPARDY.

[From "The Blank Book of a Small Collegeer."]

How much of human hostility depends on that circumstance—distance! If the most bitter enemies were to come into contact, how much their ideas of each other would be chastened and corrected! They would mutually amend their erroneous impressions; see much to admire, and much to imitate in each other; and half the animosity that sheds its baneful influence on society would fade away and be forgotten.

It was one day when I was about seven years old, after an unusual bustle in the family mansion, and my being arrayed in a black frock, much to my inconvenience, in the hot month of August, that I was told my asthmatic old uncle had gone off like a lamb, and that I was heiress of ten thousand per annum. This information, given with an air of infinite importance, made no very great impression upon me at the time; and in spite of the circumstance being regularly dwelt on by my French governess at Camden House, after every heinous misdemeanour, I had thought little or nothing on the subject, till at the age of eighteen I was called on to bid adieu to Levizac and pironettes, and hear uncle's will read by my guardian.

It furnished me, indeed, with ample materials for thinking. Dr Marrowfat's face, neither human nor divine—I see it before me while I am writing—appeared positively frightful as he recited its monstrous contents. It appeared that my father and uncle,

• That is, Jacobite.

† The Jacobite gentlemen confined in Edinburgh Castle.

though brothers, had wrangled and jangled through life; and that the only subject on which they ever agreed was supporting the dignity of the Vavasour family; that in a moment of unprecedented union, they had determined, that, as the title fell to my cousin Edgar, and the estates to me, to keep both united in the family, we should marry; and it seemed, whichever party violated these precious conditions, was actually dependent on the other for bread and butter. When I first heard of this arrangement, I blessed myself, and Sir Edgar cursed himself. A passionate, overbearing, dissolute young man, thought I, for a husband—for the husband of an orphan—of a girl who has not a nearer relation than himself in the world—who has no father to advise her, no mother to support her: a professed rake, too, who will merely view me as an incumbrance on his estate, who will think no love, no confidence, no respect due to me; who will insult my feelings, deride my sentiments, and wither with unkindness the best affections of my nature. No! I concluded, as my constitutional levity returned, I have the greatest possible respect for guardians, revere their office, and tremble at their authority; but to make myself wretched merely to please them—no, no! I positively cannot think of it.

Well, Time, who is no respecter of persons, went on. The gentleman was within a few months of being twenty-one, and on the day of his attaining age, he was to say whether it was his pleasure to fulfil the engagement; my opinion, I found, was not to be asked. A titled husband was procured for me, and I was to take him and be thankful. I was musing on my singular situation, when a thought struck me: Can I not see him, and judge of his character unsuspected by himself? This is the season when he pays an annual visit to my godmother; why not persuade her to let me visit her *incog*? The idea, strange as it was, was instantly acted on, and a week saw me at Vale-Royal, without carriages, without horses, without servants; to all appearance, a girl of no pretensions or expectations, and avowedly dependent on a distant relation.

To this hour I remember my heart beating audibly, as I descended to the dining-room, where I was to see, for the first time, the future arbiter of my fate; and I shall never forget my surprise when a pale, gentlemanly, and rather reserved young man, in apparent ill health, was introduced to me, for the noisy, dissolute, distracting, and distracted Baronet! Preciously have I been hoaxed, thought I, as, after a long and rather interesting conversation with Sir Edgar, I with the other ladies left the room. Days rolled on in succession. Chance continually brought us together, and prudence began to whisper, "You had better return home." Still I lingered; till one evening, towards the close of a long tête-à-tête conversation, on my saying that I never considered money and happiness as synonymous terms, and thought it very possible to live on five hundred a-year, he replied, "One admission more: could you live on it with me? You are doubtless acquainted," he continued, with increasing emotion, "with my unhappy situation; but not perhaps aware, that, revolting from a union with Miss Vavasour, I have resolved on taking orders, and accepting a living from a friend, if, foregoing more brilliant prospects, you would condescend to share my retirement." His manner, the moment, the lovely scene which surrounded us, all combined against me, and heaven only knows what answer I might have been hurried into, had I not got out, with a gaily foreign to my heart, "I can say nothing to you till you have, in person, explained your sentiments to Miss Vavasour. Nothing—positively nothing." "But why? Can seeing her again and again," he returned, "ever reconcile me to her manners, habits, and sentiments, or any estates induce me to place at the head of my table a humpbacked *bleu*, in green spectacles?" "Humpbacked!" "Yes, from her cradle. But you colour. Do you know her?" "Instantly. She's my most particular friend." "I sincerely beg your pardon. What an unlucky dog I am! I hope you're not offended?" "Offended! offended! offended! oh no, not offended—not the least offended. Humpbacked! of all things in the world!" and I involuntarily gave a glance at the glass. "I had no conception," he resumed, as soon as he could collect himself, "that there was any acquaintance." "The most intimate," I replied; "and I can assure you that you have been represented to her as the most dissolute, passionate, awkward, ill-disposed young man breathing." "Indeed!" "Yes, hear me. See your cousin. You will find yourself mistaken. With her answer you shall have mine." And with a ludicrous attempt to smile, when I was monstrously inclined to cry, I contrived to make my escape. We did not meet again; for the next morning, in no very enviable frame of mind, I returned home.

A few weeks afterwards Sir Edgar came of age. The bells were ringing blithely in the breeze, the tenants were carousing on the lawn, when he drove up to the door. My cue was taken. With a large pair of green spectacles on my nose, in a darkened room, I prepared for this tremendous interview. After hems and habs innumerable, and with confusion the most distressing to himself, and the most amusing to me, he gave me to understand he could not fulfil the engagement made for him, and regretted it had ever been contemplated. "No, no," said I, in a voice that made him start, taking off my green spectacles with a pro-

found curtesy; "no, no! it is preposterous to suppose that Sir Edgar Vavasour would ever connect himself with an ill-bred, awkward, humpbacked girl." Exclamations and explanations, laughter and raileries, intermixed with more serious feelings, followed; but the result of all was—that—that—that we were married.

#### MR BABBAGE'S CALCULATING MACHINE.

IN the 120th number of the Edinburgh Review, recently published, and which is unquestionably one of the best numbers of that work which has appeared for a very long while, we are presented with an article on the calculating machine which has been invented by Mr Babbage, but of which almost nothing is popularly known. By the appearance of this article, which in all probability is written by Mr Babbage himself—a matter, by the way, not always to be complained of, for an author is often best acquainted with his own productions—we are instructed first with regard to the uses of tables of numerical calculations, and next as to the exceeding difficulty of procuring these in a correct form, not only because of insidious errors which creep into the most careful computations, but because of errors in typography, which are less easily detected.

The extent and variety of tabular calculations can hardly be imagined. These tables are connected with the various sciences, with almost every department of the useful arts; with commerce in all its relations; above all, with astronomy and navigation. The surveyor, the architect, the builder, the carpenter, the miner, the merchant, the gauger, the naval architect, the engineer civil and military, the sailor and the traveller by land, all require the aid of peculiar numerical tables; and such have been published in all countries, from a pocket "ready reckoner" up to the most abstruse books of logarithms. It is of great importance that these tables be correct, for an error in a single figure may produce incalculable injury, and this is peculiarly essential in the tables printed for the use of the navigator.

"Among the tables directly necessary for navigation are those which predict the position of the centre of the sun from hour to hour. These tables include the sun's right ascension and declination, daily at noon, with the hourly changes in these quantities. They also include the equation of time, together with its hourly variation. Tables of the moon's place for every hour, are likewise necessary in navigation, together with the change of declination for every ten minutes. The lunar method of determining the longitude depends upon tables containing the predicted distances of the moon from the sun, the principal planets, and from certain conspicuous fixed stars; which distances being observed by the mariner, he is enabled thence to discover the time at the meridian (any given spot) from which the longitude (position in an easterly or westerly direction from the given spot) is measured; and by comparing that time with the time known or discoverable by a good chronometer in his actual situation, he infers his longitude. But not only does the prediction of the position of the moon, with respect to these celestial objects, require a vast number of numerical tables, but likewise the observations necessary to be made by the mariner, in order to determine the lunar distances, also require several tables. To predict the position of any fixed star, requires not less than ten numerical tables peculiar to that star; and if the mariner be furnished, as is actually the case, with tables of the predicted distances of the moon from one hundred such stars, such predictions must require not less than a thousand numerical tables." In short, the extent of reference to tables by the mariner, in order to save himself the tedious and it may be impossible process of computation in taking observations, is altogether astonishing. Great efforts have from time to time been made in every civilised nation to form accurate numerical tables of this nature; but it seems that in the very best that have been produced there are various discovered errors, and that errors have been transmitted from one work to another in all countries. "The most certain and effectual check upon errors which arise in the process of computation, is to cause the same computations to be made by separate and independent computers; and this check is rendered still more decisive if they make their computations by different methods. It is, nevertheless, a remarkable fact, that several computers, working separately and independently, do frequently commit precisely the same error; so that falsehood in this

case assumes that character of consistency which is regarded as the exclusive attribute of truth."

It being thus next to an impossibility to produce books of numerical calculations free from error, and as a single error in a table—for instance the insertion of the figure 9 for the figure 6—may actually lead to the shipwreck of a vessel or vessels, and the loss of many lives, it becomes a matter of vast moment to fix upon some new plan by which perfectly correct tables may be furnished. Such a result, we are informed, can only be produced by employing machinery, first to make the calculations upon a principle that cannot admit of error, and then, by an extension of the process, to form plates from which tables may be printed for general use. The idea of making an engine capable of working questions in arithmetic will seem, to many, one that could arise only from an overheated imagination; yet such an idea has frequently occurred to philosophic minds. The famous Pascal, as we have mentioned in his biography, invented a machine, a thing of wheels and cylinders, which could execute questions in addition, multiplication, subtraction, and division. Leibnitz, a distinguished Prussian philosopher, invented a machine with still more extensive powers; neither of these engines, however, from certain deficiencies of construction, have been found to be of any practical value. Other subsequent endeavours to reduce arithmetic to the dominion of mechanism have been equally unsuccessful; and, again, another ambitious attempt has been made by the ingenious Mr Babbage. This, as may well be supposed, has been a work of infinite labour and anxiety. Many years have been consumed in the construction and application of the mechanism, and the engine is still in an unfinished condition. It would be very hopeless for any one not acquainted with mathematics and the properties of numbers to expect to comprehend the description given by the reviewer of the character and functions of Mr Babbage's machine. In numerical computation there exist certain common principles of unvarying character and accuracy; and it is upon one of these principles, the "Method of Differences," as it is technically called, that he has thrown his calculations into wheelwork. His engine exhibits a number or a series of dial-plates with figures, acted upon by wheels, but in a manner it would be needless to explain; nevertheless, by which the development of any required number is effected. This, however, is only half of the process: the machine not only develops the number upon the dials, but acts upon punches so as to stamp the number upon copper. The machine, it is intended, shall shift the copper every line, and continue stamping or engraving till it has finished a page, or to the extent required of it. This certainly appears to be an exertion in mechanical action truly astonishing; and if actually accomplished, we must consider Mr Babbage to be the most profound genius which this world ever produced. But we must recollect, at the same time, that such an engine as is here proposed can only be valuable if it effect the practical benefit intended. The question is, will Mr Babbage's machine print correct tables?—that it will compute them correctly, we have little doubt. Here is what the reviewer says on the subject:—"The engraved plate of copper obtained in the manner above described is designed to be used as a mould from which a stereotyped plate may be cast; or, if deemed advisable, it may be used as the immediate means of printing. In the one case, we should produce a table, printed from type, in the same manner as letterpress printing; in the other, an engraved table. If it be thought most advisable to print from the stereotyped plates, then as many stereotyped plates as may be required may be taken from the copper mould; so that, when once a table has been calculated and engraved by the machinery, the whole world may be supplied with stereotyped plates to print it, and may continue to be so supplied for an unlimited period of time. There is no practical limit to the number of stereotyped plates which may be taken from the engraved copper, and there is scarcely any limit to the number of printed copies which may be taken from any single stereotyped plate. Not only, therefore, is the numerical table by these means engraved and stereotyped with infallible accuracy, but such stereotyped plates are producible in unbounded quantity. Each plate, when produced, becomes itself the means of producing copies of the table, in accuracy perfect, and in number without limit." We are afraid that the ingenious inventor of the calculating machine is here much too sanguine in his expectations. All that he ought to expect to accomplish, is to furnish one accurate set of tables as a sort of standard. If he imagine that he can produce perfect stereotype plates, or perfect printing, he is labouring under a serious mistake. As far as his machine-work is concerned, accuracy may be gained, but all after-details are effected by human agency, and, consequently, liable to error. Stereotyped plates are never so perfect as pages of moveable types. In almost every plate that is cast, there is something to correct, some letters to be cleaned and picked by the hand. Letters are frequently not sufficiently brought up, and they have to be cut out, and others inserted in their stead. This is done by the agency of a workman who is much more liable to err than a compositor. In printing from stereotyped plates, accidents also frequently occur, far more frequently, indeed, than in moveable type. The slightest touch will deface a letter or figure, and the injury must be repaired by the same ignorant workman; that is to say, if the pressman will have the

patience to wait till the plate is mended. In repairing plates so injured, wrong letters and figures are often inserted; and unless every operative possessed the intelligence, the patience, and the carefulness of a Babbage, perfection in printing from stereotyped plates will be unattainable; for it is a lamentable truth, that all that the most sublime genius can invent for the benefit of mankind after, a lifetime of deep study, may in a moment be blasted by the carelessness of a drunken or ignorant workman, to whom one of the last and meanest of the details in its execution is entrusted. Mr Babbage does not lay any stress on printing directly from the copper-plates; therefore we do not need to point out how tedious, expensive, and clumsy such a process would be in the execution of bookwork.

At present, as already mentioned, this wonderful machine of Mr Babbage is only advanced in part towards completion. It was begun under the patronage and at the expense of government, about the year 1821, but the progress of the work has been latterly stopped, and the workmen dismissed, after the sum of £15,000 has been expended. We agree with the reviewer in his concluding remarks, when he asks Mr Babbage, or those who patronised him, to explain the cause of the delay in the execution of this great undertaking; for the world will without any scruple impute the stoppage to an inability to complete that which has been begun, and from which men of science expected such splendid results.

#### SUSPENDED ANIMATION RESTORED.

WHEN the bodies of persons apparently drowned are taken out of the water, those who are near, and wish to restore animation, are frequently at a loss how to proceed. Some ignorant people think that the body should be held up by the feet, in order to allow the water to run out at the mouth. This should never be done. The best way to proceed is to lay the body down, rub it with warm cloths, and breathe into the nose or mouth, so as to expel the water, and set the lungs a-working in a natural manner. The following paragraph, which lately appeared in the Scottish newspapers, furnishes a striking instance of the value of this plan:—"A few days ago, while some boys were bathing in Linlithgow Loch, at a part where the water deepens upwards of fifty feet in the space of a few yards, one of them, in attempting to swim, got into deep water inadvertently, and went down. His companions immediately ran off to give the alarm, but a considerable time elapsed before the body was got out, when it appeared that the 'vital spark' had fled, the body having been half an hour in the water. The following treatment was resorted to, to restore animation, which proved successful:—Without losing one moment, the body was placed on its back, by some gentlemen, on a sloping bank, the head being nearly eighteen inches higher than the feet, and, in this position, one of the gentlemen instantly put one hand on the boy's mouth, having the other on the abdomen, and applying his mouth to the nose, commenced blowing with all his might, allowing the water to escape betwixt every blast, which came in great quantities from both mouth and nose, being forced out by the injected air, and a slight pressure on the abdomen with the other hand. This operation being repeated for ten or fifteen minutes, with continual rubbing of the legs, arms, abdomen, and chest, a draught of air appeared to be inhaled, and, in a little while, respiration slowly and feebly commenced. Warm water and flannels were now got, and applied to the feet and body, which appeared to cause excruciating pain, the muscles of the face becoming much distorted, followed by the vomiting of water in considerable quantities, writhing and crying hysterically. Fully an hour and a half elapsed before the boy became sensible, and recovered the use of his eyes, which were fixed during the process of resuscitation. Great praise is due to the two men, who at the risk of their lives brought the body out of the water, all three having gone down several times before they reached the shore. The boy is recovering slowly."

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